

Rhodora

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SOME NOTEWORTHY PLANTS FROM THE ISLANDS AND COAST OF MAINE.

ARTHUR H. NORTON.

DURING the last dozen years the writer has had frequent occasion to visit many of the outermost islands of Maine between Eastport and Saco Bay, and various harbors and other inlets of the coast. Many of these places, unimportant and probably not destined to receive attention from botanists for years to come, have furnished one or more rare or otherwise interesting plants. A number of the most interesting plants, seeming sufficiently isolated or having their distribution sufficiently covered, are here mentioned. It should be stated that the journeys to these islands have had non botanical objects in view, and many of the landings have been made when long distances were still to be covered, or when heavy seas or fog were threatening and time was at a premium. Under these conditions only the more conspicuous plants have fallen under observation. Some of these afford ample material for interesting generalizations, which however, must be omitted for the present. The notes are based primarily upon the writer's observations but additional records from the Gray Herbarium and the herbarium of the New England Botanical Club have been furnished by Professor Fernald.

PINUS BANKSIANA Lam. Attention has been called to the abundance of this pine at Schoodic Peninsula.¹ It remains to be said that it extends to the southeastern limits of the town of Gouldsborough,

¹ 1889 Rand, Bull. Torr. Bot. Cl. 16: 294, 295, and Redfield l. c. 295, 296.

which includes Schoodic, but not to the small islands of the outer part of Gouldsborough and Dyers Bays. It occurs upon Mt. Desert¹ and Great Wass Island;² also on Steele Harbor Island (*C. A. Cheever* in herb. New England Botanical Club).

PICEA CANADENSIS (Mill.) B.S.P. Abundant on many of the islands east of the St. Georges group. At Eastern Ear, Isle au Haut, on the south side exposed to the force of sea breezes and gales, trees ten or more feet high are so dense that a person of two hundred pounds weight may walk from the ground to the summit on the ends of the densely matted and tangled branches. West of St. Georges it becomes less abundant, and at Casco Bay is decidedly rare, though a few trees occur at Trundys Reef, Cape Elizabeth.

JUNIPERUS HORIZONTALIS Moench. Crumple Island, near Jonesport; Matinicus Seal Island, in abundance; Big Two Bush and White Head, Knox County; Pumpkin Knob near Damascove Island; Western Brown Cow and Marsh Islands, Casco Bay. Known in some sections as Slink Weed. Distribution local. In the herbarium of the New England Botanical Club are specimens from Monhegan Island (*Miss Furbish*).

TYPHA ANGUSTIFOLIA L. The easternmost recorded stations on the Maine coast are Great Chebeague, Casco Bay, and Winnegance.³

SPARGANIUM ANGUSTIFOLIUM Michx. Rare at Matinicus Island.

IRIS SETOSA CANADENSIS Foster. This plant, the interesting history of which is shown in the pages of *RHODORA*,⁴ abounds on most of the islands (excepting Machias Seal Island) east of Petit Menan Point. West of this point it becomes very local, and generally rare. It abounds, however, on Cranberry Point in the town of Gouldsboro, but is recorded as rare at Great Cranberry Island;⁵ and in 1911 I found a few plants on Little Duck Island, its southwestern known limit at this time.

IRIS PRISMATICA Pursh. On the 31st of July, 1903, I had occasion to visit Flint Island, Naraguagus Bay. While I was occupied with the object of my visit, Mrs. Norton discovered a number of sterile plants of a very slender *Iris* markedly different in appearance from the

¹ 1899 Rand, *RHODORA* 1: 135.

² 1909 Cushman, *RHODORA* 11: 13.

³ 1910 Fernald & Wiegand, *RHODORA* 12: 120.

⁴ 1902 Kennedy, *RHODORA* 4: 23-26; J. F. Collins, *ibid.* 179-180; 1903 Foster, *ibid.* 5: 157-159.

⁵ 1908 Shaw, *RHODORA*, 10: 145.

abundant *I. setosa canadensis*. After careful search she found one plant in fresh flower, rendering the identification with *I. prismatica* certain. This has been presented to the herbarium of the Portland Society of Natural History.

QUERCUS ILICIFOLIA Wang. An additional coast station is near Hall Quarry, on Mt. Robinson, Mt. Desert Island.

ARENARIA PEPLOIDES ROBUSTA Fernald. Marshalls Island, Masons Ledge and Three Ledges, Jericho Bay; Ship Island of the Mt. Desert Group; Matinicus Seal Island. West of the latter place, it has not been reported until Old Orchard (*Goodale*, 1864) is reached. It occurs at Biddeford Pool (*Kennedy* in herb. N. E. Bot. Cl.) and was found at Kittery by the Josselyn Botanical Society in 1905. At Ship Island in 1904 it attained superior development forming numerous large glistening mats and fruited plentifully. Eastward it is known from Jonesport (*N. T. Kidder* in herb. Gray) and from Roque's Bluffs.¹ Harvey and Briggs recorded it from Passamaquoddy Bay;² their station may or may not have been in Maine. Strictly local.

ARENARIA GROENLANDICA (Retz.) Spreng. Collected at Oceanville, Deer Isl., July 3, 1903.

CERASTIUM ARVENSE L. Common and often abundant on the outer fringe of Islands from the Duck Islands to Cape Elizabeth, forming large mats to the exclusion of other vegetation.

RANUNCULUS LAXICAULIS (T. & G.) Darby. July 23 to 26, 1904, a colony of small size was found at South Deer Isle, at a muddy pool, resorted to by cattle as a drinking place.

RANUNCULUS PENNSYLVANICUS L. f. Though not here regarded as a coastal plant, it practically reaches sea level at the junction of the Presumpscot River with tide water, and is not rare along the valley of the Presumpscot, considerably west and slightly south of Brunswick, its southwesternmost recorded station in the state.³ Collected at Cutler.

SISYMBRIUM INCISUM Engelm. Common by roadsides at Bar Harbor, July 13, 1911.

ARABIS DRUMMONDI Gray. Crow Nubble at the eastern end of Bradburys Island, Penobscot Bay, July 17, 1903. Having poor facilities for preserving specimens, but one was taken. The plants

¹ 1902 Moulton, *RHODORA*, 4: 189.

² 1893 Bull. Me. State Coll. Lab. Nat. Hist. 1: No. 2, pt. 2, 6.

³ 1911, Fernald, *RHODORA* 13: 181.

which were numerous, were very coarse in appearance, and the specimen taken was a small one. Even the coarse appearance of this is noticeably different from that of taller specimens of *A. drummondii* from western Maine, and the ripe pods reach fully 3 mm. in breadth. It seems best referred to *Arabis drummondii connexa* (Greene) Fernald.

ARABIS HIRSUTA (L.) Scop. "Oyster Banks," east side of Damariscotta River, Sept. 15, 1912.

SEDUM ROSEUM (L.) Scop. Reported as new to the flora of Maine in 1863 by Prof. A. E. Verrill in 1865,¹ and is admitted in fifth edition of Gray's Manual.² It was next recorded from Cutler by Harvey and Briggs,³ followed the next year by Rand and Redfield, as rare at Dog Mountain, and Egg Rock, Mt. Desert.⁴ In 1902 Miss Dora Moulton published its occurrence at Point of Main, Englishmans Bay,⁵ and later, Mr. Joseph Cushman published the fact of its general distribution in this and adjacent bays.⁶ To his list of stations should be added Pulpit and Freemans Rocks. To the westward of Great Wass Island it is common on Crumple Island and several of the small adjacent rocks. This seems to mark its limit of general distribution westward as it is not noticeable on the rocky islands off the eastern part of Gouldsborough and has not been noticed in Jericho and Penobscot Bays.⁷ At Matinicus Seal Island and Rock it is abundant, but I have not myself found it west of these islands. It is not included in Miss Mabel P. Cook's list of Monhegan plants,⁸ but there are specimens in the herbarium of the New England Botanical Club collected on Monhegan in 1901 by C. F. Jenney and in 1910 and 1911 by Miss Kate Furbish.

RIBES LACUSTRE (Pers.) Poir. Little Sheep Island, a short distance southwest of Eagle Island Light, Penobscot Bay.⁹

POTENTILLA PENNSYLVANICA L. Common in crevices of ledges of mica schist and granite on many of the outer islands. Cape Eliza-

¹ 1865 Proc. Bost. Soc. N. H. 9: 327, also 373. Cf. Porter, 1868 Am. Nat. 2: 39-40.

² 1870 Gray, Man. ed. 5, 100.

³ 1893 Bull. Me. State Coll. Lab. Nat. Hist. 1: No. 2, pt. 2, 7.

⁴ 1894 Flora Mt. Desert, 100.

⁵ 1902 RHODORA 4: 189.

⁶ 1909 RHODORA 11: 13.

⁷ I have not landed on Schoodic Point or Island nor the main island of Isle au Haut; these bold headlands seem to furnish ideal conditions for the plant, and it is to be expected there. However, I have not found it at the eastern Ear of Isle au Haut apparently suitable for its needs.

⁸ 1903 RHODORA, 3: 187-190.

⁹ 1910 See Fernald, RHODORA, 12: 34.

beth, Cushings and Green Islands, Casco Bay, Seguin, Pumpkin Knob near Damascove, Haddock Island in Bristol, have furnished herbarium specimens at hand at this writing; and it is in the herbarium of the New England Botanical Club from Kennebunkport, Cushing's Island, Monhegan Island, Great Gott Island, and Great Head on Mt. Desert Island, but there are no specimens from farther east; while the Gray Herbarium shows specimens from the Isles of Shoals, but no stations between Mt. Desert Island and the Gaspé Peninsula of Quebec.

POTENTILLA FRUTICOSA L. Crumple Island, near Jonesport, has a small colony.

RUBUS CHAMAEMORUS L. Since this plant has received frequent notices in print, including the pages of *RHODORA*, the following stations only are to be noted. Fishermans Island, near Great Wass Island Life Saving Station, Aug. 4, 1904. It has already been noticed from near Prospect Harbor, in Gouldsborough¹. In Gouldsborough it is not confined to this vicinity but occurs also about Corea. The fruit is gathered here. In 1904 I was told by two young boys at Corea, that they had sold six quarts of the berries at fifteen cents per quart, and more had been preserved for home use.

GERANIUM CAROLINIANUM L. Reported as a Maine plant in the early catalogues, but such of the early herbarium specimens as I have seen labelled *G. carolinianum* all have proved to be *G. bicknellii* Britton. In the seventh edition of Gray's Manual the range is restricted to Eastern Massachusetts southward and westward. The occurrence of *G. carolinianum* at the junction of the Presumpscot River with tide water in Falmouth, where it was collected by Edward B. Chamberlain and the writer in 1907 may be noteworthy.

EUPHORBIA POLYGONIFOLIA L. A noteworthy eastern station is found at Matinicus Island. It is frequent from Long Island, in Casco Bay westward, and has been recorded from Phippsburgh and Georgetown.²

EMPETRUM NIGRUM L. Common from Mt. Desert eastward. Westward it becomes local, and seems to disappear on the coast at the southwesterly entrance to Penobscot Bay. Abundant at Matinicus Seal Island, and occurs at Matinicus. Abundant at White Head, Knox County, and has spread to the adjacent Browns Islands. This station has been known to me for upwards of thirty years; here the

¹ Fl. Mt. Desert, 91.

² 1911 Fernald, *RHODORA* 13: 181.

fruit, known as Hog Cranberry, is often gathered for household purposes. In 1904 a small quantity was found on Rackliff's Island, about a mile distant. Since the berries are freely eaten by "soft billed birds," and the seeds pass through the alimentary canals of this (arbitrarily limited) group of birds unbroken, this station which I have reason to believe to be of rather recent origin is no doubt to be attributed to this agency. Specimens at hand from these stations belong to the type of the species.

COREMA CONRADII Torr. Gouldsborough, *Redfield*;¹ Mt. Desert, *Rand & Redfield*;² Isle au Haut, *Young*;³ Mt. Batty, Camden, *Chickering*;⁴ St. George, near sea level (new station); Bristol, *Chamberlain*;⁵ Southport, *Fernald*;⁶ Bath, *Gambel*;⁷ Phippsburgh, *Lee*;⁸ Gun Point, Harpswell, *Furbish*;⁹ Great Island, Harpswell and Orrs Island, *C. B. Fuller*, 1876. These last stations have long been known, but perhaps have not been published. Coastal stations east of Gouldsborough and west of Harpswell would be of especial interest.

KALMIA LATIFOLIA L. Though for many years known to botanists to occur at Great Island, Casco Bay, the fact seems not to have been published until 1911.¹⁰ What seems to be a forgotten station at Cherryfield, was published by Dr. Aaron Young, Jr., in 1843.¹¹ In the paper cited Dr. Young gave a very full account of a visit to the bed of *Rhododendron maximum* L. at Standish, and thereby had brought to his attention the plant at Cherryfield, supposed by his correspondent to be that species. Specimens were sent him, and proved to be *Kalmia latifolia*, of which he gave an extended account. It is extremely gratifying to find a Cherryfield specimen from Dr. Young, well preserved in the Parker Cleaveland herbarium, at Bowdoin College.

PRIMULA FARINOSA MACROPODA Fernald. Collected at Dog Rock, near Crumple Island, Jonesport, Aug. 4, 1904, by the writer. The plant has long been known from this region, at least since 1878 when

¹ 1889 Bull. Torr. Bot. Cl. 16: 296.

² 1894 Flora Mt. Desert, 148.

³ Maine Farmer, 1848, June 7.

⁴ 1859 In Herbaria, also cf. Bull. Torr. Bot. Cl. 16: 296, 1889.

⁵ 1911 Fernald, RHODORA, 13: 181.

⁶ Fernald, l. c.

⁷ 1846 Gray, Mem. Am. Acad. A. & S. 3: ?

⁸ 1906 In Herbaria.

⁹ 1911 Fernald, RHODORA 13: 181.

¹⁰ 1911 Fernald: RHODORA 13: 182.

¹¹ 1843 Young, *Flora of Bangor*, in Bangor Daily Whig and Courier. Spring or early summer.

it was brought to Dr. Wm. Wood of Portland by Hon. Wm. Senter (also of Portland), who obtained it "while gunning at Crumple Island." The exact station for Mr. Senter's plants is unknown. A detailed notice of several stations about Englishmans Bay has been furnished by Mr. Joseph Cushman.¹

MERTENSIA MARITIMA (L.) S. F. Gray. Local, with distribution in Maine corresponding somewhat with that of *Arenaria peploides robusta*: Bailey's mistake, Lubec (*Fernald* in herb. N. E. Bot. Cl.); Roque's Bluffs and Point of Main;² Jonesport (*F. H. Peabody* in herb. Gray); Mt. Desert and Cranberry Islands;³ Ship Island of the Mt. Desert group; Fog Island, Jericho Bay; Vinal Haven (*S. Watson* in herb. Gray); Matinicus Rock (superb mats); Metinic Green Island; Owl's Head (*A. H. Moore* in herb. N. E. Bot. Cl.); Burnt Island, one of the St. Georges group; Southport (*Mrs. Sharpless* in herb. N. E. Bot. Cl.); Trotts' Island, Kennebunkport (*W. H. Manning* in herb. N. E. Bot. Cl.); Wells Beach (*Miss Furbish* in herb. Gray); recorded from York.⁴

TEUCRIUM CANADENSE LITTORALE (Bickn.) Fernald. Sandy Beach, Matinicus Island. Not common on the islands east of Casco Bay. Occurs at Mt. Desert.⁵

PORTLAND SOCIETY OF NATURAL HISTORY.

¹ 1907 RHODORA 9: 217-218.

² 1902 Moulton, RHODORA 4: 189.

³ 1894 Flora Mt. Desert, 130.

⁴ 1864 Goodale, Proc. Portl. Soc. N. H. 1: 59.

⁵ Flora Mt. Desert, 135.

REPORTS ON THE FLORA OF THE BOSTON
DISTRICT,—XVIII.

GRAMINEAE.

[*Melica striata* (Michx.) Hitchc. “‘Manchester’ (S. P. Fowler), banks of the Merrimac, West Newbury,” according to Robinson, Fl. Essex Co. 128, 1880, as *Avena striata* Michx. Mr. Robinson writes that the Manchester record was a quotation from notes by S. P. Fowler. This cannot be verified. The specimen cited from West Newbury is *Bromus ciliatus* L. “Concord (E. S. Hoar; specimen in herb. of).” according to Dame & Collins, Fl. Middlesex Co. 128, 1888, as *Avena striata* Michx. This specimen, now in the herbarium of the New England Botanical Club, proves also to be *Bromus ciliatus*.]

DISTICHLIS.

D. spicata (L.) Greene. Salt marshes. Common along the coast, but not reported south of Boston.

BRIZA.

B. MAXIMA L. Boston (*C. E. Perkins*, July 3, 1878, specimen in herb. Yale University). Native of Mediterranean region and southern Africa.

B. MEDIA L. Meadows and fields, scattered throughout.

DACTYLIS.

D. GLOMERATA L. Fields, roadsides and waste places, common throughout.

CYNOSURUS.

C. CRISTATUS L. Lawns, fields and roadsides; Salem, Cambridge, Dorchester and Jamaica Plain.

POA.

[*P. alsodes* Gray. Specimens recorded from Medford, Malden, Cambridge and Newton by Dame & Collins, Fl. Middlesex Co. 130,

1888, cannot be traced, and hence the reference cannot be verified. They doubtless all belong to other species.]

P. ANNUA L. Waste places, abundant throughout.

P. COMPRESSA L. Waste places, fields and woods, in dry and moist soil. Common throughout.

P. NEMORALIS L. Wenham (*J. Robinson*, July 4, 1875); Percival St., Dorchester, introduced (*J. R. Churchill*, June 26, 1898). The Wenham plant was also probably an introduction.

P. pratensis L. Fields and meadows, common throughout.

P. triflora Gilib. Dry and wet ground, common throughout.

P. TRIVIALIS L. Damp ground and waste places. Fairly well distributed but not common, from Dedham and Hingham northward.

GLYCERIA.

G. acutiflora Torr. Wet boggy places and in shallow water. Fairly common throughout.

G. borealis (Nash) Batchelder. Wet places and in shallow water; Boxford, Stoneham, Malden, Needham and Natick.

G. canadensis (Michx.) Trin. Low ground, common throughout.

G. grandis Wats. Wet places. Fairly common in northern half of district, probably found throughout.

G. laxa Scribn. West Gloucester (*F. T. Hubbard*, Sept. 27, 1911, specimen in herb. *F. T. Hubbard*); Reading (*W. H. Manning*, July 8, 1882, specimen in herb. N. E. Botanical Club).

G. melicaria (Michx.) Hubbard. (*G. Torreyana* (Spreng.) Hitchc.; see Hubbard, RHODORA xiv. 186, 1912.) Essex Co. (*W. Oakes*, no date); bank of brook near Merrimac River, East Haverill (*J. H. Sears*, Sept. 11, 1901); Brookline (*S. Harris*, June 27, 1894). Also observed but not collected in Weston and Dedham, July, 1908, by K. M. Wiegand.

G. nervata (Willd.) Trin. Swamps and low ground, common throughout.

G. obtusa (Muhl.) Trin. Borders of ponds and wet ground. Well distributed throughout, and fairly common.

G. pallida (Torr.) Trin. Shallow water. Seventeen stations from Sudbury eastward.

G. pallida (Torr.) Trin., var. *Fernaldii* Hitchc. Edge of pond, Woburn (*C. H. Knowlton*, June 20, 1908); ditch, Concord (*W. Deane*,

July 21, 1886); shallow water in meadow, East Sudbury (*W. P. Rich*, July 7, 1901); shrubby swamp, Dover (*K. M. Wiegand*, July 9, 1908); "Charles River near Wellesley and Needham," *Wiegand*, *RHODORA* xi. 83, 1909.

G. septentrionalis Hitchc. Swamps and shallow water. Not reported north of Lynn, common elsewhere.

PUCCINELLIA.

P. distans (L.) Parl. Salt marshes and brackish soil along the coast. Rather rare; Plum Island, Revere, Charlestown, Boston, South Boston and Brighton.

P. maritima (Huds.) Parl. Salt marshes and brackish sand. Common along the coast from Hingham northward; not reported farther south, but doubtless common.

FESTUCA.

F. ELATIOR L. Fields, roadsides and waste land. Common from Walpole northward, and probably throughout.

F. MYUROS L. Wool waste, North Billerica (*C. W. Swan*, July 24, 1883); waste land, South Boston (*C. E. Faxon*, Oct. 5, 1878; *C. E. Perkins*, July 1 and 25, 1881; July 20, 1882); "N. Chelmsford, wool waste (*Rev. W. P. Alcott*)" according to *Dame & Collins*, Fl. Middlesex Co. 131, 1888.

F. nutans Spreng. Rich woods. Frequent from Randolph and Framingham northward.

F. octoflora Walt. Dry sterile soil. Fairly common throughout.

F. OVINA L. Dry sandy soil; Andover, Cambridge, Boston, Needham and Jamaica Plain.

F. OVINA L., var. *CAPILLATA* (Lam.) Hack. Occasional from Boxford, Chelmsford, Danvers, Dorchester, Wellesley and Hanson.

F. OVINA L., var. *HISPIDULA* Hack. Dry roadside, Mount Auburn Cemetery, Watertown (*A. S. Pease*, May 19, 1905); sandy field, Wellesley (*K. M. Wiegand*, May 29, 1908); campus, Wellesley (*K. M. Wiegand*, May 27, 1912).

F. rubra L. Dry sandy soil. Frequent throughout. "*F. varia*, Haenk., var. *flavescens*. (*F. flavescens*, Bellard). Chelmsford, July 3, 1883 (*Dr. C. W. Swan*)." in *Dame & Collins*, Fl. Middlesex Co. 131,

1888, in "an odd variation of *F. rubra* L." according to F. T. Hubbard.

F. rubra L., var. **megastachys** Gaudin. Vacant lot, Boston (*C. H. Knowlton*, June 25, 1908, specimen in herb. C. H. Knowlton).

F. rubra L., var. **multiflora** (Hoffm.) Asch. & Graebn. East Gloucester (*C. W. Swan*, July, 1881, specimen in herb. Yale University).

F. rubra L., var. **prolifera** Piper. Moist gravel, Lexington (*C. H. Knowlton*, Sept. 12 and 20, 1903, specimen in herb. N. E. Botanical Club).

SCLEROPOA.

S. RIGIDA (Kunth) Griseb. Boston (*C. E. Perkins*, July 1, 1878, specimens in herb. Yale University and N. E. Botanical Club). Native of southern Europe and northern Africa.

BROMUS.

B. altissimus Pursh. Ayer (*W. H. Manning*, Aug. 13, 1882, specimen in herb. N. E. Botanical Club); Trull Brook woods, Tewksbury (*C. W. Swan*, Sept. 1, 1882, specimen in herb. Yale University).

B. ARVENSIS L. South Boston (*C. E. Perkins*, June 25 and 30, 1879, specimens in herb. Yale University and N. E. Botanical Club).

B. BRIZAEFORMIS Fisch. & Mey. Charlestown (*C. E. Perkins*, July 23, 1881); South Boston (*C. E. Perkins*, May 28 and June 9, 1879); "collected for three years past on a dump near Leonard's Pond" according to E. C. Smith, *RHODORA* i. 98, 1899.

B. ciliatus L. Moist woods, fields and roadsides. Occasional northward, but not reported south of Jamaica Plain.

B. COMMUTATUS Schrad. Waste ground; Beverley, Chelmsford, Reading, Cambridge, Boston, South Boston and Dorchester.

B. HORDEACEUS L. Roadsides and waste places; Billerica, Salem, Cambridge, Boston, South Boston, Dorchester, Wellesley and Dedham.

B. HORDEACEUS L., var. **LEPTOSTACHYS** (Pers.) Beck. East Gloucester (*C. W. Swan*, —, 1881, specimen in herb. Yale University); Field's Corner, Dorchester (*C. W. Swan*, June 24, 1882, specimen in herb. Yale University).

B. INERMIS Leyss. Field under partial cultivation, Nehoiden St., Needham (*K. M. Wiegand*, July 23, 1908, specimen in herb. N. E. Botanical Club). Native of Eurasia.

B. JAPONICUS Thunb. St. Mary's St., Boston (*C. W. Swan*, July 4, 1892, specimen in herb. Yale University).

B. KALMII Gray. Malden (*C. E. Perkins*, Aug. 23, 1882, specimen in herb. N. E. Botanical Club).

B. purgans L. Rocky woods; Boxford and the neighborhood of Boston, including Woburn, Melrose, Medford, Malden, Revere and Brookline.

B. RACEMOSUS L. Waste land. Sparingly reported from Dedham northward.

B. RUBENS L. Wool waste, North Billerica (*C. W. Swan*, July 24, 1883, specimens in herb. Yale University and N. E. Botanical Club).

B. SECALINUS L. Waste places, common, but not reported south of Blue Hills. "Forms exist with the lowermost sheathes pubescent, and the lemmas at maturity touching or over-lapping and scabrous on the back, but with short awns." F. T. Hubbard.

B. STERILIS L. Waste places; Billerica, Boston and South Boston. "Winchester (*C. E. Perkins*)" and "Medford (*Miss A. M. Symmes*)," according to Dame & Collins, Fl. Middlesex Co. 132, 1888.

B. TECTORUM L. Waste places, common throughout.

B. UNIOLOIDES HBK. South Boston flats (*C. E. Perkins*, Sept. 5, 1881, specimen in herb. Yale University). Adventive from Tropical America.

B. VILLOSUS Forsk. South Boston flats (*C. E. Perkins*, June, 1882, specimen in herb. Yale University). Native of Europe.

B. VILLOSUS Forsk., var. *GUSSONII* (Parl.) Asch. & Graebn. Medford (*C. E. Perkins*, June, 1882 and June, 1883); Boston (*C. E. Perkins*, June 9, 1879); South Boston flats (*C. E. Perkins*, June, 1882). Native of southern Europe, and introduced into western United States.

LOLIUM.

L. MULTIFLORUM Lam. Fields and waste places; Revere, Somerville, Boston, Dorchester, Jamaica Plain and Scituate.

L. PERENNE L. Fields, lawns and roadsides. Frequent from Scituate and Hingham northward.

L. TEMULENTUM L. Fields and waste places; Rowley, Ipswich, Lowell, Charlestown, Boston and South Boston.

L. TEMULENTUM L., var. *LEPTOCHAETON* A. Br. "Boston or vic[inity]" (*C. E. Perkins*, —, 1882, specimen in herb. N. E. Botanical Club). See Fernald, RHODORA xii. 185, 1910.

AGROPYRON.

A. caninum (L.) Beauv. Rocky woods, Stoneham (*W. P. Rich*, July 4, 1894); ledges on Mt. Tabor, Lincoln (*J. R. Churchill*, June 18, 1883; *J. R. Churchill & Walter Deane*, Sept. 15, 1888); Concord (*C. W. Swan & C. W. Jenks*, July 6, 1888); Maj. Heywood path, near 2d Division Brook, Concord (*H. D. Thoreau*, July 1, 1859); Conantum, Concord (*E. S. Hoar*, July 6, —); Damp woods, Wellesley (*K. M. Wiegand*, July, 1912).

A. caninum (L.) Beauv., var. **tenerum** (Vasey) Pease & Moore. (*A. tenerum* Vasey; see Pease & Moore, RHODORA xii. 71, 1910.) Dry railroad bank, Norfolk (*R. A. Ware*, July 4, 1908, specimen in herb. R. A. Ware).

A. caninum (L.) Beauv., var. **tenerum** (Vasey) Pease & Moore, forma **ciliatum** (Scribn. & Sm.) Pease & Moore. (See Pease & Moore, RHODORA xii. 72, 1910.) Border of marsh, Petengill's Swamp, Newbury (*A. A. Eaton*, Aug. 12, 1897, specimen in Gray Herb.).

A. PUNGENS (Pers.) R. & S. Edge of salt marsh, Scituate (*C. H. Knowlton*, July 28, 1907, specimen in herb. C. H. Knowlton).

A. REPENS (L.) Beauv. Waste and cultivated ground, very common throughout.

A. REPENS (L.) Beauv., var. **PILOSUM** Scribn. (See Scribner, Bull. U. S. Division of Agrostology, No. 4, 1897, page 36.) Dry ground, Andover (*A. S. Pease*, June 30, 1901); low ground, Andover Hill, Andover (*A. S. Pease*, July 2, 1905); "Chelsea Beach" [Revere Beach, Revere] (*W. Boott*, July 15, 1868). Native of western North America.

SECALE.

S. CEREALE L. Rye. Waste ground. Several scattered stations throughout. Native of Eurasia.

TRITICUM.

T. AESTIVUM L. Wheat. Roadsides, wharves, railroad tracks, old fields and waste places. Scattered stations throughout. Adventive from Eurasia.

HORDEUM.

H. DISTICHUM L. West Boston dump (*C. W. Swan*, Sept. 19, 1883, specimen in herb. Yale University. *F. Lamson-Scribner* has written on the label, "Two-rowed variety.") From Tartary.

H. jubatum L. Border of marshes and dry gravelly waste places. Scattered over the eastern and southern portions of the district.

H. MARITIMUM With. South Boston (*C. E. Perkins*, May 28 and June 29, 1879, specimen in herb. N. E. Botanical Club); "Billerica, in wool waste (*Dr. C. W. Swan*). Adv. from Eu." according to *Dame & Collins*, Fl. Middlesex Co. 134, 1888.

H. MURINUM L. Dumps and wool waste, Dracut, Lowell, North Chelmsford, Billerica, Charlestown and South Boston. Specimens in Gray Herb. and in herb. Yale University and N. E. Botanical Club. Native of Europe.

H. NODOSUM L. Filling, South Boston (*H. A. Young*, June 21, 1879, specimen in herb. N. E. Botanical Club).

H. VULGARE L. Barley. Waste ground. Sparingly from Essex, Beverly, Salem, Revere and Cambridge. Originally from western Asia.

ELYMUS.

E. australis Scribn. & Ball. Dry woods, West Quincy (*J. R. Churchill*, July 11, 1891); dry woods, Blue Hill, Canton (*J. R. Churchill*, Aug. 10, 1887, and Aug. 1, 1897).

E. brachystachys Scribn. & Ball. Andover (*A. S. Pease*, Sept. 24, 1901); Sunset Rock, Lee's Cliff, Concord (*E. S. Hoar*, Sept. 6, —); rocky woods, Great Blue Hill, Canton (*A. S. Pease*, Nov. 8, 1901); Cohasset (*C. E. Faxon*, no date).

E. canadensis L. Sandy soil and rocky woods; Amesbury, West Newbury, Georgetown, Dracut, Lowell, Boston, Watertown and Dedham. "Merrimack river banks, from Lawrence to Newburyport" according to *Robinson*, Fl. Essex Co. 128, 1880.

E. striatus Willd. Dry woods and banks; Plum Island, Georgetown, Ipswich, Gloucester, Andover, Dracut, Lowell, Woburn, Melrose, Revere and Milton.

E. virginicus L. Banks of streams, borders of woods and edges of salt marsh. Frequent in the northern two-thirds of the district.

E. virginicus L., var. **hirsutiglumis** (Scribn.) Hitchc. Lower Mystic Lake, Arlington (*H. A. Young*, Aug. 1, 1880); near Charles River, East Watertown (*A. S. Pease*, Oct. 9, 1901); meadow, border of Neponset River, Milton (*W. P. Rich*, Sept. 27, 1896); dry rocks, Blue Hill, Canton (*C. H. Knowlton*, Sept. 19, 1908).

E. virginicus L., var. **submuticus** Hook. Revere (*C. E. Perkins*, Aug. 13, 1880 and Aug. 11, 1881, specimens in herb. N. E. Botanical Club). See Fernald, *RHODORA* xii. 186, 1910.

ASPERELLA.

A. Hystrix (L.) Humb. (*Hystrix patula* Moench; see Hubbard, *RHODORA* xiv. 187, 1912.) Moist and rocky woods; fifteen stations between Boxford, Quincy and Framingham.

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| C. H. KNOWLTON | } Committee |
| S. F. BLAKE | |
| WALTER DEANE | |
| | } on |
| | } Local Flora. |

JUNCUS DICHOTOMUS IN RHODE ISLAND.—The species occurs at Westerly, where I collected it among the sand hills near the beach, on September 9, 1912. Professor M. L. Fernald, who has kindly verified my specimens, writes that the species has not been reported previously from the State. Specimens from Westerly have been deposited in the Gray Herbarium.—R. W. WOODWARD, New Haven, Connecticut.

AN ALBINO KALMIA ANGUSTIFOLIA.—In August, 1911, Professor Wiegand and the writer found on the hills south of St. John's, Newfoundland, a considerable colony of *Kalmia angustifolia* with white corollas; and recently Miss Martha Louise Loomis has sent to the Gray Herbarium fresh specimens of the same albino form from Sherborn, Massachusetts. As this form is conspicuous in the field and one which it may be desirable to refer to by name it may be called **KALMIA ANGUSTIFOLIA** L., forma **candida**, n. f., corolla alba.—NEW-FOUNDLAND: damp mossy or turfy hollows on hill south of St. John's, Aug. 2, 1911, *Fernald & Wiegand*, no. 6019. MASSACHUSETTS:

one plant in a wet pasture with the common rose-flowered form, Sherborn, June 18, 1913, comm. by *Miss M. L. Loomis*.—M. L. FERNALD.

AN IMPORTANT PUBLICATION ON THE BIOLOGY OF WOOD'S HOLE.—Vol. XXXI of the Bulletin of the Bureau of Fisheries, U. S. Department of Commerce and Labor, has just been issued, 860 large octavo pages, with 274 charts and maps; all devoted to the fauna and flora of the Wood's Hole region. Naturally, the greater part is taken by the zoological side, but the botanical part, by Dr. Bradley M. Davis, is the most important paper on the marine algae of this coast that has appeared for some time. In part 2 is the "census" of the marine flora of the Wood's Hole region, giving all the species of which there is authentic record, 240 in all, with full particulars of station, etc.; this list may be considered fairly complete, and of much value to students of the region. Part 1, the "survey", will attract more general interest, as it gives the results of dredging at 458 stations in Buzzard's Bay and Vineyard Sound, in the years 1903, 1904, 1905, and a few in 1907; while the distribution of 38 of the principal species of algae is shown on charts. A uniform outline chart is used, the chart for each species being marked with stars, each showing the place of a dredging where the species was found. This graphic representation of the distribution of a species, certainly new in its application to algae, and probably to plants in general, is so much superior to anything that could be shown by descriptions or tables, that it is likely to be adopted generally when the data are sufficient to justify it. There is also a somewhat similar representation of the seasonal changes, for a period of 15 months, of the algae growing at various levels on a small group of rocks, "Spindle Rocks"; we can recall no record of any similar series of observations. The tendency of recent local reports in Europe is towards observations of all the conditions of the species recorded, and away from the mere list; Dr. Davis' work will rank with the best of the kind. By botanists who favor uniformity of nomenclature, a government publication like this, with the nomenclature conforming to the Vienna rules, will be hailed with much satisfaction.—FRANK S. COLLINS, North Eastham, Massachusetts.

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